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## Stress and aggression among handball and basketball players

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### Abstract

The aim of this study was to determine the difference of aggression and stress among the selected Handball and Basketball players. Also the study aimed to find the relationship between the stress and aggression among Handball and Basketball Players. Hundred participants (50 men Handball players and 50 men Basketball players) who participated in the intercollegiate championships of University of Calicut during the year 2021 with age ranging from 18 to 25 year were selected for the study. Independent t test was used to determine the difference of stress and Aggression among Handball and Basketball Players. Handball Players exhibited higher Stress than the Basketball Players (Mean and SD of Handball players was 48.50 & 1.31 and Mean of Basketball Players was 43.52 & 2.72). Handball players exhibited higher aggression than the basketball players (Mean and SD of Handball players was 12.88 & 3.66 and Mean and SD of Basketball players was 10.88 & 2.68). Pearson Product Moment correlation was used to determine the relationship of stress and aggression among Handball and Basketball players. There was a significant relationship between stress and aggression among the Handball and Basketball Players.

**Keywords:** Stress, aggression, intercollegiate players

### Introduction

Even though sports psychology has not been able to bring about any physical changes, but it has been able to take athletes to new heights by managing their emotions. Sports psychology can be used to control stress, cope with stressful situations, maintain athletic stability, and improve athletes' performance. Sports psychology understands how mental discourse affects performance, and how competition is related to the psychological and physical aspects. Psychological aspect is becoming more and more emphasized today and its importance is increasing exponentially. Learning about the characteristics that affect the performance of an athlete is very helpful to improve performance of athletes. Sports psychology is a subcategory of psychology that studies the behaviour of athletes in competition situations and practice time. Stress can ruin on athletes' years of training and hard work and prevent them from applying while playing. Stress diminishes the ecstasy of the athlete. Stress leads to mental conflict, causing physical injury and destroying the athlete's career. We can consider stress as a challenge or an obstacle on the path to success. Aggression is considered as a negative emotion in sports. Aggression is a condition that affects performance both positively and negatively, but is considered by many as a negative emotion. Aggregation beyond an optimum level will deny a player from taking his full performance. Today the mental health has a huge effect on the performance of the many sports persons of different sports at various level of competition. Recently in Tokyo Olympics a high profile US gymnast, Simon Biles exit from the event due to huge stress. The researcher like to understand the psychological variables stress and aggression of handball and basketball players of university of Calicut. These are the reason why the scholar selected the study "Stress and Aggression among handball and basketball players". The purpose of the study was to find the difference between stress among selected handball and basketball players, find out the difference between aggression among handball and basketball players and to find out the relationship between stress and aggression among selected total handball and basketball players.

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**Materials and Methods**

For the purpose of the study fifty each male handball and basketball player who participated in the intercollegiate championships of University of Calicut in the year 2021 was selected. The age of the participants was delimited to 18 to 25 years old. To find out the aggression of the participants the sports aggression inventory prepared by Anand Kumar and Prem Shankar Shukla (1998) was used and to find out the stress the perceived stress scale prepared by Reena kaul and Bedi (2001) was used. For statistical analysis descriptive statistics, independent t test and Pearson product moment correlation was used at 0.05 level of significance.

**Result & Findings**

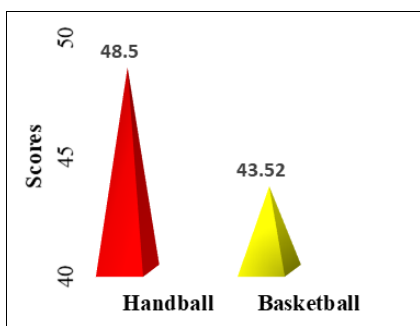
**Table 1:** Representing the difference between stress of Handball and basketball players and their ‘t’ value.

Variable	Handball Players (mean ± SD)	Basketball Players Mean ± SD	t value	p value
Stress	48.5 ± 1.31	43.52 ± 2.72	2.20	0.03

(t=2.20\*, p=0.03, p<0.05)

\*t value is significant at the 0.05 level

Table-1 It is clear that mean, standard deviation of stress in Handball players and Basketball players 48.5 ± 1.31 and 43.52 ± 2.72. The t value is 2.20. There is a significant difference between stress of Handball and Basketball players.



**Fig 1:** Stress

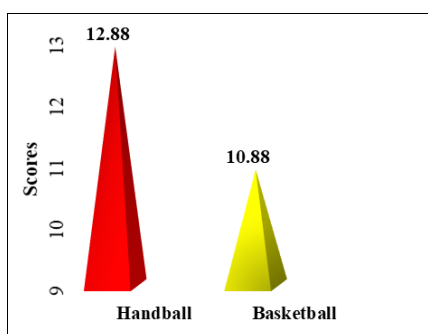
**Table 2:** Representing the difference between Aggression of Handball and basketball players and their ‘t’ value.

Variable	Handball Players (mean ± SD)	Basketball Players Mean ± SD	t value	p value
Aggression	12.88 ± 3.66	10.88 ± 2.68	3.11	0.02

(t=3.11\*, p=0.02, p<0.05)

\*t value is significant at the 0.05 level

Table-2 It is clear that mean, standard deviation of aggression in Handball players and Basketball players 12.88 ± 3.66 and 10.88 ± 2.68. The t value is 3.11. There is a significant difference between Aggression of Handball and Basketball players.



**Fig 2:** Aggression

**Table 3:** Relationship between Stress and Aggression of handball and basketball players

Stress	Aggression	
	Pearson Correlation	0.452*
	Sig.	0.00
N		100

(r=0.452\*, p=0.00, p<0.05)

\*Correlation is significant at the 0.05 level (2-tailed)

Table-3 Shows the Correlations coefficient between aggression and stress of handball and basketball players. The statistical results showed that stress level (r=0.452\*, p=0.00), p<0.05) showed a significant relation with aggression level.

Through the results researcher came to know that the stress of the handball players was higher than the Basketball Players. The main reason for increase amount of stress in Handball players is the handball Game consist lesser number of fouls. Due to the lower number of fouls the players are not getting the advantage to score the point for their team. As handball is a contact sports, not every time the referee will call in favour of players. Minor fouls will be neglected during the game. This will make the players in higher state of stress. When consider about the duration of the play of both games the Handball players have to play twenty minutes more than the Basketball players. So Handball players should have more endurance than the Basketball players. When the handball players cannot maintain the endurance level at the last periods of the game. The increased amount of physical fatigue will tend the Handball players to exhibit a higher stress

From the results of the study the researcher also came to know the Aggression exhibited by the Handball players was higher than that of Basketball players. The main reason for increase in the aggression in Handball game is because of difference in the nature of skills of Handball and Basketball. The offensive and defensive skills of the handball have a higher nature of contact sports. Basketball has less contact nature than Handball. Playing contact Game will exhibit more aggression than game with Non-contact nature sports. In handball lot of contact takes place during executing offensive and defensive skills. So the contact of players in handball will lead the players to exhibit aggression than the basketball players.

From the result of the study the researcher came to know that there exists a positive relationship between the stress and Aggression of Handball and Basketball Players. When the stress increases the players will exhibit aggressive behaviour in both handball and basketball players. It is because when the players are prevented from exhibiting the skills by opponents or any external factors like environment or physical fitness they feel stressed. The frustration arising from the result will leads to exhibits high aggressive behaviour in Handball and basketball players.

**Conclusions**

From the result it was concluded that there was a significant difference on stress of Handball and Basketball players. It was concluded that there was a significant difference on Aggression of Handball and Basketball players. It is concluded that there existed a significant difference between the Stress and Aggression in Handball and Basketball Players

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